GISBORNE AND HAWKE'S BAY REGION

KiwiRAP
NEW ZEALAND ROAD ASSESSMENT PROGRAMME

WHAT IS KIWIRAP?

The New Zealand Road Assessment Programme, KiwiRAP, falls under the umbrella of the International Road Assessment Programme, iRAP. Similar programmes have been implemented in Europe (EuroRAP), Australia (AusRAP) and the United States of America (usRAP) and developments are underway for a programme in Africa.

KiwiRAP has been initiated in New Zealand as a partnership between the government transport agencies (Ministry of Transport, Transit New Zealand, Land Transport New Zealand, Accident Compensation Corporation, New Zealand Police) and The New Zealand Automobile Association.

The objectives of KiwiRAP are:

> To reduce deaths and injuries on New Zealand roads by systematically assessing risk and identifying safety shortcomings that can be addressed with practical road improvement measures.
> To have risk assessment as a key factor in strategic decisions on road improvements, crash protection and standards of road management.
> To provide meaningful information on where the greatest levels of risk are faced and in turn to influence behaviour.

HOW DOES A ROAD ASSESSMENT PROGRAMME WORK?

Road Assessment Programmes internationally consist of three 'protocols'.

> **RISK MAPPING**
Uses historical traffic and crash data to produce colour-coded maps which illustrate the relative level of risk on sections of the road network.

> **PERFORMANCE TRACKING**
Involves a comparison of crash rates over time to establish whether fewer – or more - people are being killed or injured and determine if countermeasures have been effective.

> **STAR RATING**
Road inspections assess the engineering features of a road (such as lane and shoulder width or presence of safety barriers). Between 1 and 5 stars are awarded to road links depending on the level of safety which is 'built-in' to the road.

RISK MAPS

Risk Mapping currently focuses on the state highway network. In the future this may extend to tourist routes or key regional non state highway routes.

The state highway network is broken up into road sections (known as 'links'), for the purpose of comparing the level of risk of crashes between different parts of the network. The Risk Maps focus on state highway links that are typically outside the urban area – that is, state highway links that have speed limits of 80km/h or more.

For the purposes of displaying the safety risk of the state highway network, KiwiRAP looks at two different measures of risk - Collective Risk (or Crash Density) and Personal Risk. The focus of both is on crashes where people have been killed or seriously injured. The crash statistics used for the calculations are for the five-year period 2002–2006.

Collective Risk (or Crash Density)
Collective Risk is a measure of the total number of fatal and serious injury crashes per kilometre over a section of road. Collective Risk can also be described as the Crash Density. Because Collective Risk is measured in terms of the number of crashes per kilometre of state highway, links with higher traffic volumes tend to have a higher Collective Risk.

Personal Risk
Personal Risk is a measure of the danger to each individual using the state highway being assessed. Unlike Collective Risk, Personal Risk takes into account the traffic volumes on each section of state highway.

This brochure contains the Gisborne and Hawke's Bay regional Risk Map data.

RISK RATING	COLLECTIVE RISK Average annual fatal and serious injury crashes per km	PERSONAL RISK Average annual fatal and serious injury crashes per 100 million vehicle-km	COLOUR
Low	≤0.039	<4	
Low-medium	0.04 ≤ 0.069	4 ≤ 4.9	
Medium	0.07 ≤ 0.10	5 ≤6.9	
Medium-high	0.11 ≤ 0.189	7 ≤ 8.9	
High	0.19+	9+	

KiwiRAP is a road safety partnership between the Automobile Association and New Zealand's main transport agencies: Transit New Zealand, Ministry of Transport, ACC, Land Transport New Zealand, and New Zealand Police.

HOW SAFE ARE OUR ROADS?
Rating New Zealand's State Highways for Risk

Gisborne and Hawke's Bay Region Results Table

Link	Length (km)	Serious Injury Crashes 2002 to 2006	Fatal Crashes 2002 to 2006	Collective Risk Band	Collective Risk Annual average fatal and serious injury crashes per km	Personal Risk Annual average fatal and serious injury crashes per 100 million vehicle-km	Personal Risk Band
SH 2 from Gisborne to Wairoa	89.5	22	7	Medium	0.07	8.7	Medium-high
SH 2 from Napier to Hastings	14.3	22	6	High	0.4	8.2	Medium-high
SH 2 from Opotiki to Gisborne via Waioeka Gorge*	138	26	12	Low-medium	0.06	9.9	High
SH 2 from SH 5 Bay View to Napier	9.2	9	4	High	0.35	9.6	High
SH 2 from Takapau to Hastings	68.8	33	13	Medium-high	0.15	5.9	Medium
SH 2 from Takapau to Woodville*	58.9	31	4	Medium-high	0.13	7	Medium-high
SH 2 from Wairoa to SH 5 Napier	104.3	26	2	Low-medium	0.05	8.1	Medium-high
SH 2B Airport to Taradale Rd	2.4	1	0	Medium	0.08	2.8	Low
SH 5 from Tarawera to SH 2 Bay View (North of Napier)	61.5	22	8	Medium	0.1	7.5	Medium-high
SH 5 from Taupo to Tarawera*	60.9	15	7	Medium	0.07	5.4	Medium
SH 35 from Opotiki to Tokomaru Bay	236.1	17	10	Low	0.02	8.4	Medium-high
SH 35 from Tokomaru Bay to Gisborne	97.2	13	4	Low-medium	0.04	6.5	Medium
SH 38 from Wairoa to Waikaremoana	64	2	1	Low	0.01	6	Medium
SH 50 and SH 50A Taradale Rd to Pakipaki	22.6	14	8	High	0.19	5.5	Medium
SH 50 from Napier to Takapau	81.6	21	7	Medium	0.07	11.5	High

* These links cross map boundaries, so will appear in more than one regional list.

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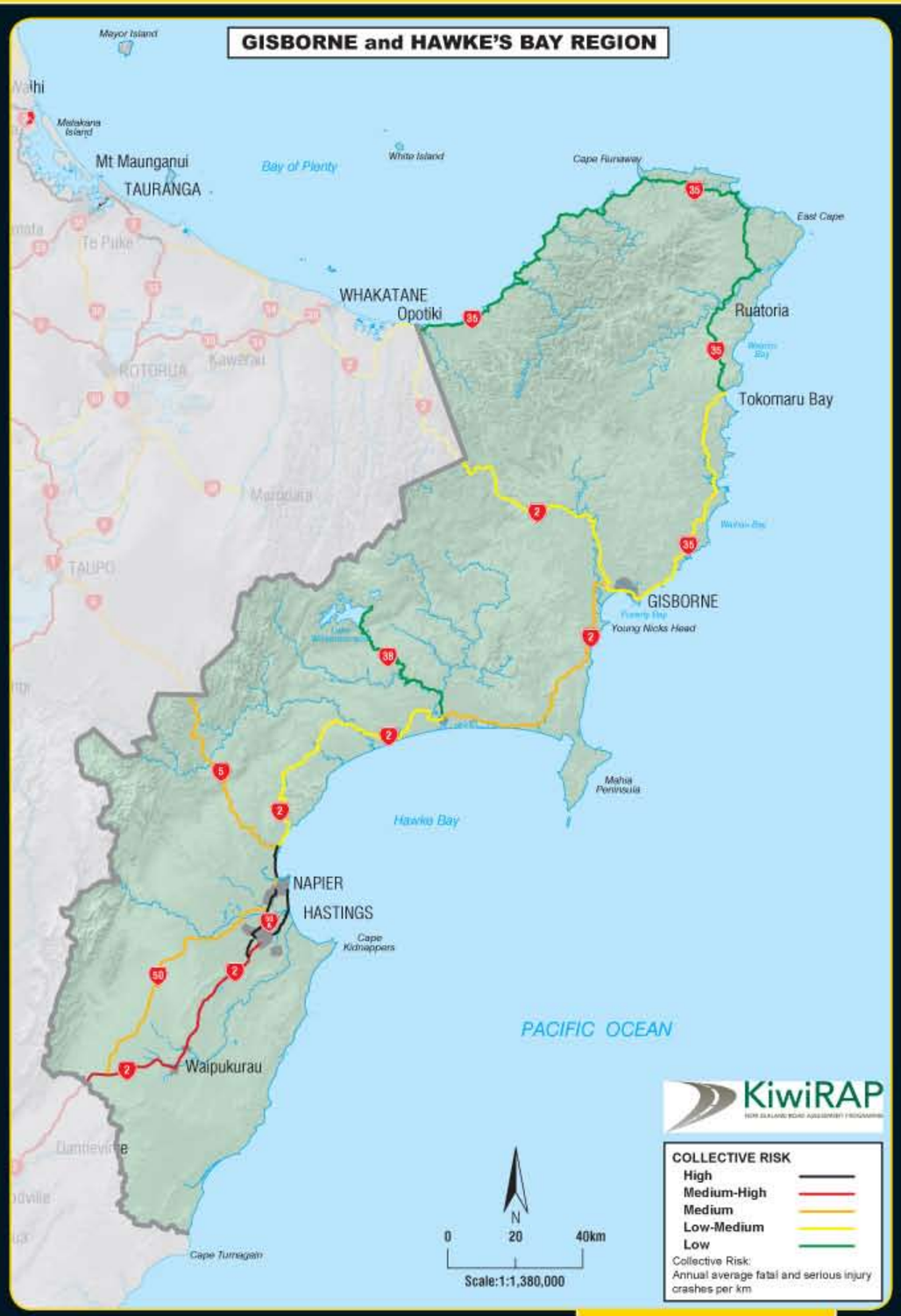
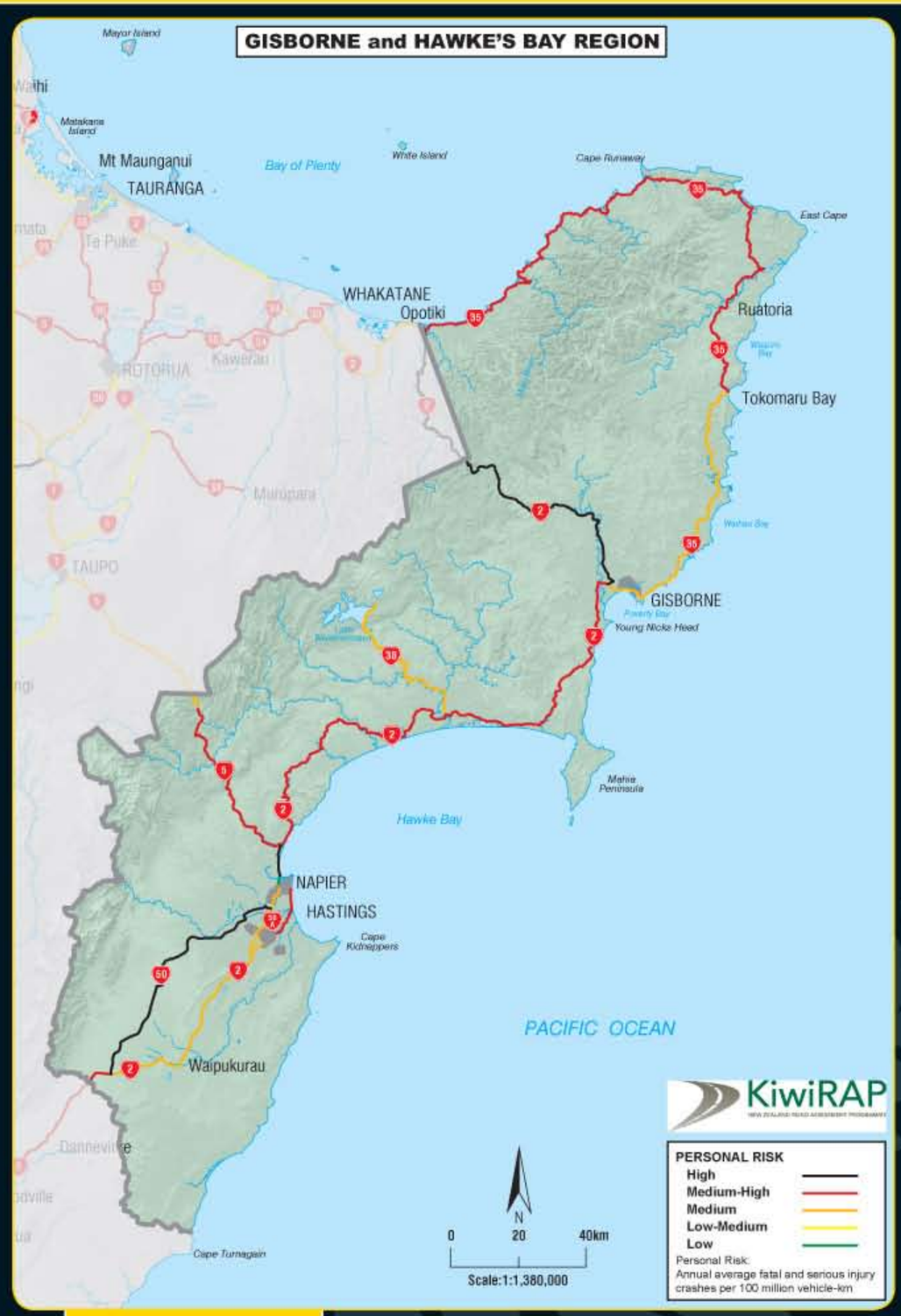


COLLECTIVE RISK MAP

Collective Risk	High	Medium-high	Medium	Low-medium	Low
Gisborne and Hawke's Bay	5% 46 km	8% 76 km	27% 256 km	30% 286 km	31% 300 km

Percentages may not add to 100% due to rounding



PERSONAL RISK MAP

Personal Risk	High	Medium-high	Medium	Low-medium	Low
Gisborne and Hawke's Bay	18% 175 km	53% 513 km	28% 274 km	0% 0 km	<1% 2 km

Percentages may not add to 100% due to rounding